

CLAIMS

1. Device for sensing the presence of the distal end of a source wire in a reference position within a guidance channel of an afterloading apparatus, said afterloading apparatus being used for positioning an energy emitting source fixed to said distal end of said source wire at a desired position within an animal body for radiation therapy treatment purposes, by driving said source wire from said reference position towards said desired position through said guidance channel and a catheter tube, which catheter tube is connected with one tube end to the afterloading apparatus and implanted with its other tube end in said animal body, **characterized in that** a lever element is pivotally mounted near said guidance channel, which lever element is in a first position, when said distal end of said source wire is not present in its reference position and whereas said lever element is in a second position, when said distal end is present in its reference position.
2. Sensing device according to claim 1, **characterized in that** when said lever element is in a third position, said distal end is past said reference position.
3. Sensing device according to claim 1, **characterized in that** in said first position said lever element extends in said guidance channel.
4. Sensing device according to claim 1, **characterized in that** said lever element is biased against a counterforce, said counterforce urging said lever element in its first position.
5. Sensing device according to claim 4, **characterized in that** said device further comprises a spring for exerting said counterforce on said lever element.
6. Sensing device according to claim 1, **characterized in that** detection means are present for detecting the presence of said lever element in said first, second or third position.

7. Sensing device according to claim 6, **characterized in that** said detection means comprises at least one light emitting element and one light detector mounted at both sides of said lever element.

8. Sensing device according to claim 7, **characterized in that** said lever element is at least partly made of a light non-transparent material.

9. Sensing device according to claims 7, **characterized in that** said lever element is provided with at least one through bore.

10. Sensing device according to claims 7, **characterized in that** an edge of said lever element is provided with at least one notch.

11. Sensing device according to claim 6, **characterized in that** the optical path formed by said light emitting element and said light detector is located some distance away from the guidance channel.

12. Sensing device according to claim 6, **characterized in that** said lever element is made of a magnetic material and wherein said detection means comprises a Hall-sensor.

13. Sensing device according to claim 6, **characterized in that** detection means comprises at least one switch, preferably a microswitch.

14. Sensing device according to claim 1, **characterized in that** the energy emitting source is radio-wave antenna.

15. Sensing device according to claim 1, **characterized in that** the energy emitting source is miniature X-ray source.

16. Sensing device according to claim 1, **characterized in that** the energy emitting source is a radioactive source.

17. Sensing device according to claim 1, **characterized in that** the source wire is a optical wire.

18. Sensing device according to claim 1, **characterized in that** the source wire is a coaxial cable.

19. Sensing device according to claim 1, **characterized in that** the source wire is a nickel-titanium alloy wire.

20. Sensing device according to claim 1, **characterized in that**

the source wire is a combination of optical wire surrounded by a nickel-titanium alloy tube.

21. Sensing device according to claim 1, **characterized in that** the source wire is a combination of a coax cable and an optical wire.

5 22. An afterloading apparatus provided with a sensing device according to claim 1.